

ABSTRACT:

Study of the properties of nuclear isomers is a current research focus. We have studied the systematic 8^+ + isomeric levels, half-lives, deformation parameters, and reduced transition probabilities between 8^+ + 6^+ state of even-even ^{76}Ni to ^{94}Pd nuclei for $N = 48$ neutrons. The calculated half-lives and quadrupole moments are compared with the experimental values. Moreover, we have studied the systematic $B(E2)$ values, intrinsic quadrupole moments and values of β/β_{2SP} as a function of atomic number (Z) for $N = 48$ neutrons.